

REMARKS

Claims 1-24 were presented in the application as filed. Group V was elected in a Response filed January 11, 2007 and claims 25-34 were added in the same Response. Claims 15-17 and 25-34 were amended in a Response filed August 14, 2007. Claims 15-17, 29, 30, and 34 are amended, claims 25-28 and 33 are canceled, and claims 35-39 are new. Claims 15-17, 29-32, and 34-39 are pending. Reconsideration of the application and allowance of all claims pending herein are respectfully requested in view of the remarks below.

Claim 15 has been amended such that the "salt of a sulfonated styrene copolymer" as previously recited is now "at least one salt of polysulfonated hydrogel". Support for the amendment can be found in paragraphs [0075]-[0079] and [0082] which describe the sulfonated styrene copolymer as a hydrogel and/or hydrogel coating. Fig. 1 also refers to the styrene sulfonate polymer as a hydrogel coating. Paragraph [0077] describes sulfonated copolymer hydrogels in a salt form, and paragraphs [0126]-[0129] and [0131] describe examples of a polysulfonated hydrogel comprising at least one salt.

Claim 15 also has been amended to include the term "water-insoluble" to describe the coating recited therein. Support for this amendment arises from the fact the coating recited in claim 15 comprises a hydrogel. A hydrogel is a network of polymer chains that are water-insoluble. The coating recited in claim 1 comprises a hydrogel and thus, is also water-insoluble. Additional support for the amendment can be found in paragraph [0133] describing at least one embodiment reduced to practice in which the coating is water-insoluble. Paragraph [0033] describes the formation of a coating comprising a benzyltrimethyl ammonium (BTMA) salt of a styrene-ethylene-butylene, styrene (SEBS) triblock copolymer. The SEBS-BTMA copolymer is formed by immersing a PET fabric coated with a sodium salt of SEBS into an aqueous BTMA solution for hydration and eventual equilibration of the two salts. The coating comprising the sodium salt of SEBS does not dissolve in the aqueous solution and demonstrates that the coating is water-insoluble.

Additionally, the amendment to claim 15 meets the descriptive support requirement under 35 U.S.C. § 112, first paragraph, since the originally filed application disclosure conveys, to one skilled in the art, that the Applicant had possession of concept of what is claimed, *i.e.*, a water-insoluble coating, in order to satisfy descriptive requirement, since lack of literal basis in the disclosure of the limitation does not establish *prima facie* case for lack of descriptive support. *See Ex Parte Parks*, 30 USPQ2d 1234, (*Board of Patent Appeals and Interferences* 1994).

Claim 15 also has been amended to include specific embodiments of the porous surface, which are those recited in former dependent claims 26 and 33, and as such are supported.

Claims 16, 17, 29, and 30 have been amended to make them consistent with the amendments of claim 15, *i.e.*, the incorporation of polysulfonated hydrogel language.

Claim 29 has been amended to include the limitation of the hydrogel being a copolymer having a block structure, a random polymer structure, or a statistical polymer structure. Support the foregoing amendments can be found in paragraph [0075], which states the term sulfonated styrene polymer (now a hydrogel as explained above), encompasses among other polymers, copolymers. Paragraphs [0080], [0085], [0087], and [0088] describe embodiments of polysulfonated styrene polymers that are block and statistical in structure.

Claim 34 has been amended to be dependent on claim 15.

No new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

The Office Action states that claim 15 is rejected under 35 U.S.C. §102(b) as being anticipated by Saute *et al.* (U.S. 4,126,142). Claim 15 is independent.

A claim is anticipated if each and every element set forth in the claim is found in a single prior art reference.

As to amended claim 15, Saute *et al.* discloses a two-step skin treating technique wherein a film of sodium polystyrene sulfonate cosmetic solution is applied to areas of the skin. When the solution dries, a coating is formed that tightens the skin and increases blood circulation resulting in cosmetically attractive changes to areas of the skin treated, see abstract. The coating is eventually removed by washing the coating with a cool water rinse; see col.3, lines 31-36. The coating is water-soluble as it is able to be removed/dissolved in water.

Applicants respectfully assert that Saute *et al.* does not teach each and every element of amended claim 15. Saute *et al.* does not teach a water-insoluble coating, a coating comprising a salt of a polysulfonated hydrogel, and coating the polysulfonated hydrogel on a porous surface wherein the porous surface is selected from the articles recited in amended claim 15.

In light of the above, Applicants respectfully assert that Saute *et al.* is not an anticipating reference. Saute *et al.* does not disclose each and every element as set forth in amended claim 15, *i.e.*, a water-insoluble coating, a coating comprising a salt of a polysulfonated hydrogel, and coating the polysulfonated hydrogel on a porous surface wherein the porous surface is selected from the group of articles recited therein. Reconsideration of amended claim 15 under 35 U.S.C. § 102(b) is respectfully requested. New claims 35-38, though not rejected but which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons in light of Saute *et al.* New claim 39, though not rejected, is believed allowable for the same reasons as amended claim 15 in light of Saute *et al.*

The Office Action states that claims 15, 25, and 34 are rejected under 35 U.S.C. §102(b) as being anticipated by Cohen *et al.* (U.S. 2,676,896). Claim 15 is independent.

Claim 25 has been canceled and thus, the rejection is moot.

As to amended claim 15, Cohen *et al.* teaches a process for treating textile materials resulting in the formation of a coating thereon. The coating imparts the properties of durability and being anti-static to the areas of the treated material, see abstract. The coating also possesses the property of being water repellant/resistant, see col. 6, lines 70-75 of Example I.

Applicants respectfully assert that Cohen *et al.* does not teach each and every element of amended claim 15. Cohen *et al.* does not teach a coating comprising a salt of a polysulfonated hydrogel. A hydrogel is a network of polymer chains that are water-insoluble. A hydrogel also has the physical property of being super absorbent, *i.e.*, it can absorb and hold several times its own weight in water. Cohen *et al.* teaches coatings that are specifically water repelling when laundered and thus, not water absorbing. Since the coatings of Cohen *et al.* do not have the property of absorbing water, they cannot be hydrogels.

In light of the above, Applicants respectfully assert that Cohen *et al.* is not an anticipating reference. Cohen *et al.* does not teach each and every element as set forth in amended claim 15, *i.e.*, a coating comprising a salt of a polysulfonated hydrogel. Reconsideration of amended claim 15 under 35 U.S.C. § 102(b) is respectfully requested. New claims 35-38, though not rejected but which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons in light of Cohen *et al.* New claim 39, though not rejected, also is believed allowable for the same reasons as amended claim 15 in light of Cohen *et al.*

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

The Office Action states that claims 16 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cohen *et al.* Claim 15 is independent.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations [see, MPEP 2143].

As to amended claim 15, Applicants respectfully reassert that Cohen *et al.* does not teach each and every element of amended claim 15 for the same reasons provided against the 35 U.S.C. §102(b) above, specifically a coating comprising a salt of a polysulfonated hydrogel. Additionally, Cohen *et al.* teaches away from the use of a hydrogel, as one of the preferred properties of the coatings of Cohen *et al.* is water resistance, see col. 6, lines 70-75 of Example I. Claims 16 and 17, which depend from claim 15, add further limitations to claim 15.

In light of the above, Applicants respectfully assert that a *prima facie* case of obviousness has not been established. Cohen *et al.* does not teach or suggest, all the claim limitations of amended claim 15, *i.e.*, a coating comprising a salt of a polysulfonated hydrogel. Therefore, Cohen *et al.* does not render amended claim 15 obvious and thus, claims 16 and 17, which depend from claim 15 and add further limitations to an allowable claim, are believed allowable for the same reasons. Reconsideration of claims 16 and 17 under 35 U.S.C. § 103(a) is respectfully requested.

The Office Action states that claims 15 and 27-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Berlowitz-Tarrant *et al.* (U.S. 5,840,387). Claim 15 is independent and has been amended to incorporate the limitations of former claims 26 and 33, *i.e.*, forming a water-insoluble coating as recited in amended claim 15 on a porous surface said porous surface is an article selected from the group comprising a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing.

Berlowitz-Tarrant *et al.* discloses sulfonated copolymers useful for providing non-thrombogenic coatings for medical devices, see abstract. Applicants respectfully assert that Berlowitz-Tarrant *et al.* does not teach or suggest each and every element of amended claim 15, specifically, the limitations of former claims 26 and 33.

Additionally, Applicants also respectfully assert one having ordinary skill in the art would not attempt to modify Tarrant *et al.* for use with articles such as a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing as there would be no requisite motivation supporting the modification and such a modification would be drawing a conclusion of obviousness from the Applicants' specification. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against the teacher." *In re Lee*, 277 F.3d at 1343, citing *W.L. Gore & Assocs. V. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). See *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988) ("[t]here must be a reason or suggestion in the art for selecting the procedure used, other than the knowledge learned from the applicant's disclosure"); *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 381 F.3d 1371 (Fed. Cir. 2004)) ("the suggestion to combine references must not be derived by hindsight from knowledge of the invention itself."). Using an applicant's disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the prior art contravenes the statutory mandate of § 103, which requires judging obviousness at the point in time when the invention was made. See *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988).

As presented above, nowhere in Berlowitz-Tarrant *et al.* is taught or suggested a method comprising forming a water-insoluble coating as recited in amended claim 15 on a porous surface said porous surface is an article selected from the group comprising a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing. The foregoing is only taught in Applicants' disclosure and would only be attempted with the guidance of Applicants' disclosure. Thus, Applicants respectfully assert that any modification of Berlowitz-Tarrant *et al.* would only be done by using Applicants' disclosure as a blue print and using hindsight to reconstruct the claimed invention as recited in amended claim 15, and therefore Berlowitz-Tarrant *et al.* would not render amended claim 15 obvious.

Further, Applicants also respectfully assert one having ordinary skill in the art would not attempt to modify Tarrant *et al.* by combining it with the teachings of Saute *et al.* and/or Cohen *et al.* to arrive at the invention of amended claim 15, specifically, forming a water-insoluble coating comprising a salt of a polysulfonated hydrogel on a porous surface said porous surface is an article selected from the group comprising a gas filter, a laboratory work surface, a laboratory

wipe, and a wound dressing as there would be no requisite motivation within each reference or the combination of the references supporting the modification, and such a modification would be drawing a conclusion of obviousness from the Applicants' specification.

In light of the above, Applicants respectfully assert that a *prima facie* case of obviousness has not been established as Berlowitz-Tarrant *et al.* does not teach or suggest each and every element as set forth in amended claim 15, *i.e.*, a method comprising forming a water-insoluble coating as recited in amended claim 15 on a porous surface said porous surface is an article selected from the group comprising a gas filter, a laboratory work surface, a laboratory wipe, and a wound dressing or provide suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings. Therefore, Berlowitz-Tarrant *et al.* does not render amended claim 15 obvious. Reconsideration of claim 15 under 35 U.S.C. § 103(a) is respectfully requested.

Claims 27-30, which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons. New claims 35-38, though not rejected but which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons in light of Berlowitz-Tarrant *et al.* New claim 39, though not rejected, also is believed allowable for the same reasons as amended claim 15 in light of Berlowitz-Tarrant *et al.*

The Office Action states that claims 15, 17, 31, 33, and 34 are rejected under 35 U.S.C. §103(a) as being unpatentable over Stephenson *et al.* (U.S. 3,987,797). Claim 15 is independent.

Stephenson *et al.* discloses surgical sutures coated with a block elastomeric copolymer of a polyquaternary polyurethane ionically bonded to a polyanionic polymer and receptive to treatment with antimicrobial compounds such that the surgical sutures have long-lasting antimicrobial properties.

Applicants respectfully assert that Stephenson *et al.* does not teach each and every element of amended claim 15. Stephenson *et al.* does not teach a coating comprising a salt of a polysulfonated hydrogel. A hydrogel is a network of polymer chains that are water-insoluble and super absorbent, *i.e.*, it can absorb and hold several times its own weight in water. Stephenson *et al.* discloses complex polymers that are urethane based and may contain limited amounts of anionic polymers such as polystyrene sulfonate but nowhere in Stephenson *et al.* is it taught or

suggested that the ionically bonded block elastomeric copolymers described therein are hydrogels.

Additionally, Stephenson *et al.* teaches away from the use of a hydrogel, as the coatings of Cohen *et al.* do not absorb water and thus, cannot be a hydrogel. Examples 4-21 describe using water immersion and/or extraction techniques, which expose a coated suture, or suture related material to water for extended periods of time such as 24 hr, 120 hr, and 168 hr. One having ordinary skill in the art would recognize from the data presented in the foregoing examples that during the extended exposure to water, the coated sutures did not absorb water as a hydrogel would. Thus, the coated sutures disclosed in Stephenson *et al.* are not coated with hydrogels.

In light of the above, Applicants respectfully assert that a *prima facie* case of obviousness has not been established as Stephenson *et al.* does not teach or suggest each and every element as set forth in amended claim 15, *i.e.*, specifically, forming a water-insoluble coating comprising a salt of a polysulfonated hydrogel on a porous surface selected from articles recited therein, or provide suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings. Therefore, Stephenson *et al.* does not render amended claim 15 obvious. Reconsideration of claim 15 under 35 U.S.C. § 103(a) is respectfully requested.

Claims 17, 31, 33, and 34, which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons. New claims 35-38, though not rejected but which depend from claim 15, and add further limitations to an allowable claim, are believed allowable for the same reasons in light of Stephenson *et al.* New claim 39, though not rejected, also is believed allowable for the same reasons as amended claim 15 in light of Stephenson *et al.*

The Office Action states that claim 32 is rejected under 35 U.S.C. §103(a) as being unpatentable over Stephenson *et al.* (U.S. 3,987,797) in view of Poche (U.S. 5,932,437). Claim 15 is independent.

Applicants respectfully reassert that claim 15 is not obvious in light of Stephenson *et al.* for the reasons stated above. Poche does not remedy the deficiencies of Stephenson *et al.* and therefore, the combination of Poche with Stephenson *et al.* does not render claim 15 obvious. Claim 32, which depends from claim 15, and adds a further limitation to an allowable claim, is believed allowable for the same reasons. Reconsideration of claim 32 under 35 U.S.C. § 103(a) is respectfully requested.

If a telephone conference would be of assistance in advancing the prosecution of the subject application, Applicants' undersigned agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Surinder S. Punia", written over a horizontal line.

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